



**Region 6**  
**1445 Ross Avenue**  
**Dallas, Texas 75202-2733**

**NPDES Permit No. NM0020532**

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## **AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM**

In compliance with the provisions of the Clean Water Act, as amended, (33 U.S.C. 1251 et. seq; the "Act"),

Rio Algom Mining LLC  
P.O. Box 218  
Grants, NM 87020

is authorized to discharge from a facility located at the Ambrosia Lake mining area, approximately 25 miles north of Grants, McKinley County, New Mexico,

to receiving waters named an unnamed arroyo to Arroyo Del Puerto, thence to San Mateo Creek, thence to Rio San Jose, thence to Rio Puerco in stream segment 20.6.4.105 of the Rio Grande Basin

Outfall 001: Latitude 35° 22' 35" North, Longitude 107° 48' 21" West

in accordance with effluent limitations, monitoring requirements and other conditions set forth in Parts I, II, and III hereof.

This permit supersedes and replaces NPDES Permit No. NM0020532 issued on December 20, 2005.

This permit shall become effective on

This permit and the authorization to discharge shall expire at midnight,

Issued on

Prepared by

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Miguel I. Flores  
Director  
Water Quality Protection Division (6WQ)

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Isaac Chen  
Environmental Engineer  
Permits Section (6WQ-PP)

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PART I  
REQUIREMENTS FOR NPDES PERMITS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

OUTFALL 001

During the period beginning the effective date and lasting through the expiration date, the permittee is authorized to discharge from Outfall 001 – storm water runoffs and mine drainage water.

Such discharges shall be limited and monitored by the permittee as specified below:

<u>EFFLUENT CHARACTERISTIC</u>	STORET CODE	<u>DISCHARGE LIMITATIONS</u>		<u>MONITORING REQUIREMENTS</u>	
		CONCENTRATION (mg/L UNLESS STATED)		FREQUENCY	SAMPLE TYPE
<u>CONVENTIONAL</u>		<u>MONTHLY AVG</u>	<u>DAILY MAX</u>		
Flow (MGD)	50050	Report	Report	Continuous	Record
Total Suspended Solids	00530	20	30	1/week	24-hr. composite
Chemical Oxygen Demand	00340	100	125	1/week	24-hr. composite
Gross Alpha	80029	10 pCi/l	15 pCi/l	1/week	24-hr. composite
Ra226 (dissolved)	09503	3 pCi/l	10 pCi/l	1/week	24-hr. composite
Total Ra226	09501	10 pCi/l	30 pCi/l	1/week	24-hr. composite
Ra226 + Ra228	11503	20 pCi/l	30 pCi/l	1/week	24-hr. composite
Total Uranium	22706	2	4	1/week	24-hr. composite
Total Zinc	01092	0.5	1.0	1/week	24-hr. composite
Total Selenium	01147	5 µg/l	5 µg/l	1/week	24-hr. composite
Total Cadmium	01027	0.42 µg/l	0.42 µg/l	1/week	24-hr. composite
Dissolved Cadmium	01025	Report	Report	1/week	24-hr. composite
Total Hardness		Report	Report	1/week	24-hr. composite

The pH shall not be less than 6.6 standard units nor greater than 9.0 standard units and shall be monitored 1/week by grab sample.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

EFFLUENT CHARACTERISTICS	DISCHARGE MONITORING		MONITORING REQUIREMENTS	
WHOLE EFFLUENT TOXICITY TESTING (48-Hour Static Renewal)	30-DAY AVG MINIMUM	48-HR MINIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
Daphnia pulex	Report	Report	1/3 Months	24-Hr Composite

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): At the final Outfall 001.

**B. EFFLUENT CHARACTERISTIC ANALYSIS**

The permittee shall collect the first mine water sample within 30 days after the resume of mining for analysis of effluent characteristics. A second mine water sample shall be collected within 30 days after the first sample is taken. Mine water samples may be collected from mine water treatment pond if no discharge occurs. Analytes include pollutants listed below:

POLLUTANTS	CAS No.	STORET	MQL
<b>Radioactivity, Nutrients, and Chlorine</b>			
Aluminum, dissolved	7429-90-5	01106	2.5
Boron, dissolved	7440-42-8	01022	100
Cobalt, dissolved	7440-48-4	01037	50
Vanadium, dissolved	7440-62-2	01087	50
Ra-226 and Ra-228 (pCi/l)		11503	
Tritium (pCi/l)		04124	
Gross Alpha (pCi/l)		80029	
Total Residual Chlorine	7782-50-5	50060	33
<b>METALS AND CYANIDE</b>			
Antimony, dissolved (P)	7440-36-0	01097	60
Arsenic, dissolved (P)	7440-38-2	01000	0.5
Cadmium, dissolved	7440-43-9	01025	1
Chromium, dissolved	18540-29-9	01034	10
Copper, dissolved	7440-50-8	01042	0.5
Lead, dissolved	7439-92-1	01049	0.5
Mercury, total	7439-97-6	71900	0.005
Nickel, dissolved (P)	7440-02-0	01065	0.5
Selenium, dissolved (P)	7782-49-2	01145	5
Silver, dissolved	7440-22-4	01077	0.5
Thallium, dissolved (P)	7440-28-0	01059	0.5
Zinc, Dis.	7440-66-6	01080	20
Cyanide, weak acid dissociable	57-12-5	00718	10
<b>DIOXIN</b>			
2,3,7,8-TCDD	1764-01-6	34675	1E-05
<b>VOLATILE COMPOUNDS</b>			
Tetrachloroethylene	127-18-4	34475	10
<b>ACID COMPOUNDS</b>			
Pentachlorophenol	87-86-5	39032	50
<b>BASE/NEUTRAL</b>			
Benzo(a)pyrene	50-32-8	34247	5

Hexachlorobenzene	118-74-1	39700	5
<b>PESTICIDES AND PCBS</b>			
Aldrin	309-00-2	39330	0.01
Gamma-BHC	58-89-9	39340	0.05
Chlordane	57-74-9	39350	0.2
4,4'-DDT and derivatives	50-29-3	39300	0.02
Dieldrin	60-57-1	39380	0.02
Alpha-Endosulfan	959-98-8	34361	0.01
Beta-Endosulfan	33213-65-9	34356	0.02
Endrin	72-20-8	39390	0.02
Heptachlor	76-44-8	39410	0.01
Heptachlor Epoxide	1024-57-3	39420	0.01
PCBs	1336-36-3	39516	0.2
Toxaphene	8001-35-2	39400	0.3

Note: All analytes listed in EPA Application Form 2C shall be analyzed and reported for permit renewal application.

C. REPORTING OF MONITORING RESULTS

Monitoring results shall be reported in accordance with the provisions of Part III.D.4 of the permit. Monitoring results obtained during the previous month shall be summarized and reported on a Discharge Monitoring Report form postmarked no later than the 15th day of the month following the completed reporting period.